Time Use of Chinese Family Members -A Balance between Salary Market and Household Service

Jiayang Wang

College of Liberal Arts
University of Connecticut
*Corresponding author. Email: jiayang.2.wang@uconn.edu

ABSTRACT

With the rapid development of the society, there appear many new economy phenomena in China. The economic value of household work has fascinated lots of experts' eyes. Household work is widely accepted as an unpaid work. And because women largely take the responsibility of it, their rights and economic value are always ignored. Household work is a very important part of our economic life and it also influences the development and improvement of economy. This paper uses the data of 2008 Time Use Survey of China, and 2010 survey on the status of Chinese women. And it applies OLS regression and descriptive statistics to compare the gender difference on the division of labor. The comparisons from several aspects explain how gender effects on the division of labor and leads to inequality. It is found that there are obvious gender differences on household work time. The number of children makes remarkable influence on the time of household work. So do income level, education level, age, work distance and etc. The people of low salary and low education level are mostly influenced by the traditional thought that let women do most housework while men take the responsibility of income. And the gender difference of household work of high education level and income is relatively small. Women are largely influenced by the marital status and men mostly compromise for their formal works.

Keywords: *China, Time Use, Household Service, OLS regression*

1. INTRODUCTION

In recent years, there has been a steady stream of international discussions about the role of women and the development and changes in modern family life. Economists are keen to discuss women's labor participation, especially the extension of market labor in the late last century and early 21st century, that is, the study of domestic labor participation. In the past, scholars believed that anything that happened within the scope of domestic labor was outside the scope of the market[1]. However, the social division of labor since the Industrial Revolution has allowed more women to work within the family. Although this labor is usually unpaid. Family life in developed Western countries has undergone technological changes [2]. Widespread use of dishwashers, dryers and sewing machines makes household chores easier. At the same time, due to the massive urban investment such as sewer and clean water system, etc. have promoted the progress of public health,

it has also reduced the time requirement of married women's home care and related services [3]. These liberate women from housework, thus making them active in the labor market and a source of increased income [4]. Since then, the time of women's housework has gradually decreased, and the market value has gradually increased, which also makes people pay more attention to the relationship between the family and other activities in the time allocation [5]. This study will clarify whether women in emerging economies with both traditional culture and economic development, such as China, could be able to get a balanced between housework and paid work, and whether Chinese women's time allocation sometimes will be affected by their spouse's wages and market wages.

2. LITERATURE REVIEW

Until World War II, there were far fewer women with formal jobs and income than those who were married but

only busy around the stove [6] Yet when twentieth-century researchers were investigating fertility rates, the question of the impact of domestic work came into their sights. At that time, few studies considered the domestic work of married women as an economic activity, and researchers and scholars generally considered any matter that occurred within the scope of domestic work to be outside the scope of the market [1]. But after Researchers in the United States began to be curious about housework in the last century, housework has become an important part of modern family economy research and has gradually used a microeconomic analysis framework.

The researchers found that, women made an increasingly valuable contribution to economic development during the industrialized years, and their main job is no longer limited to housework serves [7]. Cain argues that middle-class housewives gained gradually increasing power to control their time despite being suppressed in the labor force and confined to the family world as distinct from men [8]. They are gaining influence not only on children's issues, but in all family decisions, including market decisions about fertility and possibly even their husbands. When researchers discovered the value of women in the family and society, they believed that women should strengthen their perception of their own image, emphasize their authority, and enrich their own experiences, which in the long run would not only support and contribute to the establishment of the women's movement, but also give women more independent space outside the family and stimulate more potential for women [9] [10].

With the extensive discussion of women's socio-economic status in recent years, some topics to support the strengthening of women's status have been given unprecedented attention in the international community, and what kind of gender characteristics of non-marketized products and services have been defined as values have become a hot issue that has always been discussed by scholars. Because the most important domestic work in these services is done by women, its social value, together with the social value of women themselves, is one of the most concerned issues in recent years, and it not only has profound internal causes, but also has a strong external impact on society.

3. THEORETICAL FRAMEWORK AND DATA SOURCE

3.1. Theoretical Framework

The theoretical hypotheses of this research are that market wages affect women's time allocation; that women find a balance between external wage rates and household service; that the level of the market wage rate affects the supply of working hours for workers. In reality, the real market wage rate cannot be observed. Therefore, this paper uses the total income to the wage rate as an approximate alternative, to observe the impact of income level on the respondent's domestic labor time. According to the "U" hypothesis of labor supply, pulling supply does not always show a trend of increasing with the increase of wage rates, but begins to gradually decline after passing through a certain critical wage rate level. the matching of marriage makes the market bargaining power of both husband and wife increase, according to the labor supply "U" hypothesis, women's labor supply is distributed with the income level "U", then women will spend more time in the family; while men are more following the best decisions made by women's market competitiveness, and their housework labor time shows inverted "U" shaped distribution characteristics under the marriage matching hypothesis (Figure 1).
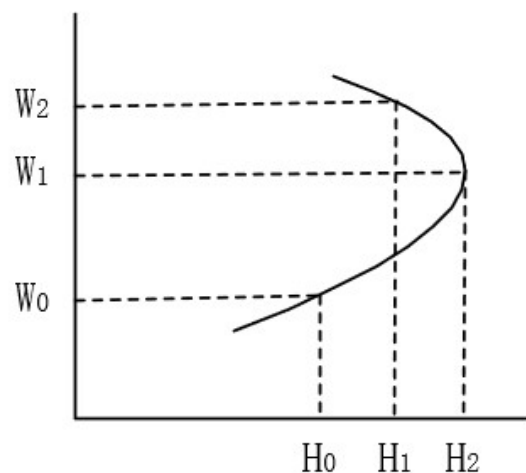

Figure 1. Labor supply U-shaped curve

Based on the above theoretical analysis and the availability of microscopic data, the final regression equation is:

$$\log(y) = \beta_0 + \beta_1 \cdot child + \beta_2 \cdot \log(income) + \beta_3 \cdot married + \beta_4 \cdot (married \cdot dif)$$

$$+\beta_i \cdot X_i + \varepsilon_i$$

Among them, β_1-β_4 and β_i represents the regression coefficient of interpretation variables, represents the number of children of the respondent, and INCOME represents the income level of the survey, and Married represents the marriage status of the respondent. DIF represents the product of marital status and spouse's income. The income represents its own income. X_i represents other control variables, ε_i is an error term that obeys a normal distribution.

3.2. Data Sources

This paper will use both macro and micro data to analyze the factors influencing the length of household hours of Chinese residents. The macro data used in this paper are derived from the 2008 Time Utilization Survey

Data and the China Statistical Yearbook implemented by the National Bureau of Statistics of China. The microdata used comes from the relevant data of the Third Survey on the Social Status of Chinese Women, jointly organized by the China Women's Federation and the National Bureau of Statistics of China. The sample contains both urban and rural samples. The survey objects are the population aged 15-74 among the surveyed households, with a total of 16,661 households and 37,142 people. Among them, the number of urban samples was 19621 and the number of rural samples was 17521; the number of male samples was 18215, and the number of female samples was 18927.

4. RESULTS

Table 1 is Non-SNA activity time per day for men and women at different income levels. This table is compiled by the National Bureau of Statistics of China.

Table 1. Non-SNA activity time per day for men and women at different income levels

Non-SNA activity time (Min)	Male	Female
0	72	263
Less than 500 CNY	70	247
500-1000 CNY	90	231
1000-2000 CNY	97	219
2000-5000 CNY	94	194
5000-10000 CNY	81	192
More than 10,000 CNY	72	217

From the housework time at different wage levels, it can be seen that no matter what wage level, women's housework time is more than male housework time. Men in the range of 1000-2000 yuan have the most domestic labor time, it can be seen that men's housework working hours are not affected by wages, and even men with wages of more than 10,000 yuan have longer housework than men without income. Women have the most housework time in all range, in addition to the income of more than 10,000 people, the housework time is decreasing sequentially, it can be seen that women's market value has an impact on their time utilization, when their market value is higher, their housework will be negatively affected. People with high incomes, both men and women, have a tendency to reduce the number of hours spent on household work.

Table 2. OLS Model

Variable	Coefficient	Sd error	t	P	95% confidence interval	
Gender	0.59	0.01	50.79	0.00	0.57	0.61
Age	-0.02	0.00	-7.88	0.00	-0.02	-0.02
Age^2	0.00	0.00	9.33	0.00	0.00	0.00
Marriage	0.04	0.03	0.89	0.32	-0.02	0.10
income	-0.11	0.01	-16.63	0.00	-0.13	-0.09
Spouse income	-0.16	0.01	-4.95	0.00	-0.18	-0.14
Urban	-0.03	0.01	-2.64	0.01	-0.05	-0.01
ethnic	0.01	0.02	0.52	0.59	-0.03	0.05
Edu	-0.08	0.01	-8.74	0.00	-0.10	-0.06
Health	-0.03	0.01	-3.44	0.00	-0.05	-0.01
Children						
1	0.17	0.03	4.76	0.00	0.11	0.23
2	0.12	0.03	4.39	0.00	0.06	0.18
_cons	4.62	0.11	57.92	0.00	4.40	4.84
N	15419.00					
F	512.33					
Adj R-squared	0.25					

Table 2 shows the regression results by using the data for the Chinese Women's Social Status Survey Dataset. In multiple linear regression, the F value of the overall model is 512.33, and the adjustment R^2 is 25.06%, and the overall model has a good fit effect. In addition to marital status and ethnicity, other variables had a significant impact on the respondents' time for domestic labor. When establishing the empirical model, this paper assigns a value of 1 to married, unmarried, divorced, widowed, and other as 0, so whether or not to be married does not have a significant impact on housework time. The regression coefficient for the sex dichotomy variable is 0.59, which is significant at the level of 1‰, and the absolute value of this coefficient is the largest of all independent variables. This conclusion confirms the previous conclusion that macro data analysis is used. That is to say, in the distribution of housework time, it is affected by the cultural tradition of "male outside and female inside", and gender factors are the most critical factors affecting domestic working hours. The explanatory variable y is the natural view of housework time, that is, in the average sense, in the case of other factors equivalent, women have 61.0% more housework time than men, and this gap is considerable.

Age has a negative impact on housework time, and the average length of work decreases as age increases. The coefficient of age was significantly negative, indicating that the average length of housework decreased with the increase of age in the working age range of 15-64 years, and the square term coefficient of age was significantly negative, indicating that the trend of decreasing average length of housework gradually slowed down. It is worth noting that although the quadratic term coefficient of age is negative, the estimation of its parameters is almost zero, that is, there is a marginal decrease in the age effect statistically, but it is of little significance in economic terms.

As for children, the number of children significantly affects the respondent's housework time. There was no statistically significant difference between the regression coefficients with a number of children of 1 and more than 1 of the two variables, with an F-value of 0.12. That is to say, the difference in housework time only exists between families with children and families without children, and on average, the time spent working in the housework of families with children is about 15% more than that of families without children; in families with children, the number of children does not significantly affect the length of time of household work.

The other control variables are also oriented in line with theoretical expectations. Respondents with non-agricultural household registrations had more time spent on housework by respondents with agricultural household registration; as their education level increased, the average length of household work began to decline; and the lower the respondents' health self-assessment, the

longer their housework time. The regression results of the above control variables confirm that whether the respondents participate in housework depends more on the trade-off between the return on housework and the level of the market wage rate, and that individuals who are more competitive in the labor market are more likely to engage in paid market labor.

5. DISCUSSION

Chinese women tend to do high-frequency, long-term housework tasks such as preparing food, cleaning and tidying up the environment, laundry and tidying up clothes, and caring for underage families. This also reflects that most of the burden of housework falls on women, and men often sit back and enjoy their roles, and if we do not pay attention to the economic value of housework, we will erase the huge economic contribution that most women make to the family. At the same time, the number of children will significantly affect the individual's housework time, that is, the more children there are, the longer the time of housework, as mentioned earlier, the housework of caring for minor families is mostly undertaken by women, so the situation of multiple children also significantly increases women's housework time. Income levels, especially income gaps with spouses, can also significantly affect housework time, which decreases as income increases, and men usually earn more than women, so this also results in longer housework for women. In addition, the burden of housework in rural areas is overwhelmingly on women, which is significantly affected by traditional culture, which is manifested in the fact that even if men have low wages or even no income, the time of housework is still not significantly affected, and it continues to decline, and the burden of women's housework will not be reduced.

6. CONCLUSION

This research draws the following basic conclusions. First, there are significant gender differences in the use of housework time, and women undertake more housework than men. Second, from the perspective of life cycle, the average housework time decreases gradually with age. Although there is a statistically diminishing marginal effect, the actual diminishing marginal effect is not significant. Third, with the increase of income level, the surveyed housework time gradually decreases. The regression results show that the efficient division of labor within the family also affects the household labor time of the respondents, specifically, the household labor tendency within the family and the allocation to the lower-wage spouse. However, women's housework is usually unpaid. The economic value they create is often ignored and not truly recognized and incorporated into economic accounting. In the future, this study will use cost accounting methods to quantify the economic value

of housework, such as the proportion of hidden housework output value in GDP.

REFERENCES

[1] Campbell, H. (1896). Household economics: A course of lectures in the school of economics of the University of Wisconsin. GP Putnam's Sons.

[2] Blackburn, & Robert, M.. (1999). Is housework unpaid work?. International Journal of Sociology & Social Policy, 19(7/8), pp. 1-20.

[3] Gershuny, J., & Robinson, J. P. (1988). Historical changes in the household division of labor. Demography, 25(4), pp. 537-552.

[4] England, P., & Farkas, G. (2017). Households, employment, and gender: A social, economic, and demographic view. Routledge.

[5] Hawrylyshyn, O. (1976). The value of household services: A survey of empirical estimates. Review of Income and Wealth, 22(2), pp. 101-103.

[6] Stage, S., & Vincenti, V. B. (Eds.). (1997). Rethinking home economics: Women and the history of a profession. Cornell University Press. DOI: https://doi.org/10.7591/9781501729942-010

[7] Bittman, M., England, P., Sayer, L., Folbre, N., & Matheson, G. (2003). When does gender Trump money? Bargaining and time in household work. American Journal of Sociology, 109(1), 186-214. DOI: https://doi.org/10.1086/378341

[8] Cain, G. G. (1984). Women and work: Trends in time spent in housework. Wisconsin: University of Wisconsin-Madison.

[9] Gilman, C. P. (1903). The home, its work and influence. London: William Hei-nemann.

[10] Morris, L. (1989). Household strategies: the individual, the collectivity and the labour market-the case of married couples. Work, Employment and society, 3(4), pp. 447-464.